

Listing of Claims:

1. (Canceled)

2. (Currently amended) A semiconductor radiation detector element of a Schottky type barrier, ~~type according to claim 1 in which~~ comprising:

a compound semiconductor crystal including cadmium and tellurium as main components; and

voltage application means for applying voltage to the compound semiconductor crystal, said voltage application means including a compound of indium, cadmium and tellurium: $\text{In}_x\text{Cd}_y\text{Te}_z$ formed on one surface of the compound semiconductor crystal;

wherein the rate “z” of occupation of tellurium in the compound of indium, cadmium and tellurium: $\text{In}_x\text{Cd}_y\text{Te}_z$ is within ~~the~~ a range of not less than 42.9%, but not greater than 50% by ratio of number of atoms.

3. (Currently amended) A semiconductor radiation detector element of a Schottky type barrier, ~~type according to claim 1 in which~~ comprising:

a compound semiconductor crystal including cadmium and tellurium as main components; and
voltage application means for applying voltage to the compound semiconductor crystal, said voltage application means including a compound of indium, cadmium and tellurium ($\text{In}_x\text{Cd}_y\text{Te}_z$) formed on one surface of the compound semiconductor crystal;

voltage application means for applying voltage to the compound semiconductor crystal, said voltage application means including a compound of indium, cadmium and tellurium: $\text{In}_x\text{Cd}_y\text{Te}_z$ formed on one surface of the compound semiconductor crystal;

wherein the rate “y” of occupation of cadmium in the compound of indium, cadmium and tellurium: $\text{In}_x\text{Cd}_y\text{Te}_z$ is within ~~the~~ a range of not less than 0%, but not greater than 10% by ratio of number of atoms.